

Amendments to the Specification

Please replace the paragraph on Page 4, lines 14 - 19 with the following marked-up replacement paragraph:

-- The passive transponder in an RFID chip can return a series of bits, such as the EPC, on command. Some kinds of RFID tags are also updateable, providing a small amount of read/write storage. With reference to Fig. 1, for example, when the tag 100 is subjected to a radio-frequency signal, the integrated circuit 110 reads the radio-frequency signal from the antenna 120 and interprets the signal as a command to read or write data [[to or]] from or to memory located on the integrated circuit. --

Please replace the paragraph on Page 11, lines 9 - 10 with the following marked-up replacement paragraph:

-- Fig. 2 illustrates a globally-unique identifier (“GUID”) that may be used to identify a transaction, according to embodiments of the present invention[[]]; --

Please replace the paragraph that begins on Page 12, line 13 and carries over to Page 13, line 6 with the following marked-up replacement paragraph:

-- Preferred embodiments write the ownership data, secured with public key encryption techniques, onto a non-volatile memory on the RFID tag of a product using a read/write RFID transponder, although traditional indelible marking techniques such as engraving, bar codes, 2-dimensional or matrix codes could also be used advantageously for writing this secured ownership data. Alternative embodiments write the secured ownership data on existing products that already

contain data memories and input/output capabilities, such as computers and peripherals, pervasive computing devices, consumer electronics, and appliances. (Commonly-assigned and co-pending U. S. Patent 7,069,452, entitled Patent _____, entitled “Methods, Systems and Computer Program Products for Secure Firmware Updates”, and U. S. Patent 6,976,163, entitled “Methods, Systems and Computer Program Products for Rule Based Firmware Updates Utilizing Certificate Extensions and Certificates for Use Therein”, disclose techniques for creating a secure memory within the flash memory of computing devices, consumer electronics, and appliances. The teachings in these commonly-assigned inventions, which were filed on July 12, 2000 and have serial numbers 09/614,982 and 09/614,983, respectively, may be leveraged by alternative embodiments which write ownership data into products containing data memory.) --

Please replace the paragraph on Page 25, lines 1 - 11 with the following marked-up replacement paragraph:

-- After the new ownership record has been created, the registrar preferably creates a digital signature (Block 560) over the entire record (with the exception of the digital signature field itself). As has been described, this digital signature is preferably a hash of all the other fields which is then encrypted by the registrar’s private key. Computing the digital signature over the entire record, and then storing that digital signature on the product, makes it infeasible to counterfeit or falsify a product-integral ownership record (for example, by copying information from another product or selectively omitting or altering fields on the product-integral record). In addition to, or instead of, computing a digital signature ~~[[only]]~~ over the entire contents of the new ownership record, a digital signature may be computed over another portion thereof (such as

only the last-transaction field, as depicted at 387 in Fig. 3E) in alternative embodiments, without deviating from the scope of the present invention. --

Please replace the paragraph that begins on Page 25, line 18 and carries over to Page 26, line 1 with the following marked-up replacement paragraph:

-- When the information logged at Block 570 includes the entire contents of the ownership history record, as illustrated in Fig. 3F, a product's most-recent ~~most recent~~ audit record specifies its entire ownership transfer history. When using a format ~~[[for]]~~ of the type illustrated in Fig. 3E, on the other hand, the product's ownership transfer history spans multiple audit records. --

Please replace the paragraph on Page 27, lines 7 - 19 with the following marked-up replacement paragraph:

-- Figs. 6 and 7 illustrate a preferred embodiment of the initialization operations which are performed for a product's ownership transfer record, and provide logic implemented on the product and at the registrar, respectively. As can be seen by comparing these figures to Figs. 4 and 5, initializing the chip may be implemented as a special case of the general ownership transfer procedure. In preferred embodiments, since the ownership history field 320 and last transaction field 330 are empty for this not-yet-transferred product, the product code (e.g., the EPC) itself is provided to the registrar at Block 600 of Fig. 6, preferably as a read-only field. Once the registrar processes this information and returns a GUID and initial data for the ownership transfer record (as depicted in Fig. 7), the transmitted data is received (Block 610) at the product and is used to

initialize the ownership transfer record stored on the product at Block 620. Preferably, this initialization comprises storing the newly-received GUID at field ~~321~~ (as 321 (as the original GUID) and also storing the values received from the registrar in corresponding sub-fields of last transaction field 330. --

Please replace the paragraph on Page 36, lines 4 - 17 with the following marked-up replacement paragraph:

-- Turning now to Fig. ~~[[14,a]]~~ 14, a sample field organization is shown to illustrate placement of control fields within a field according to the first related invention, thereby controlling the type of operation(s) that may be performed upon the field. As disclosed therein, fields are preferably organized as type, length, value triplets. Fig. 14 depicts memory contents of an RFID tag in accordance with a preferred embodiment of the first related invention, in which three basic pieces of information are stored in the tag. These are represented by rows 1400 in Fig. 14, and specify a product's UPC 1402, list price 1404, and a tracking number 1406. As disclosed in the first related invention, tracking number 1406 uniquely identifies the particular item of merchandise attached to the tag as among other items in the store or as among other items on a global scale (all items of merchandise in the world, for instance), and once an item has been purchased, the value 1416 for tracking number 1406 is rewritten as a short tracking number. (The short tracking number enables determining whether the item has been paid for, and also eliminates the ability to track a human being by tracking a globally-unique item number on a product carried by the person.) --

Please replace the paragraph that begins on Page 36, line 18 and carries over to Page 37, line 5 with the following marked-up replacement paragraph:

-- Each of the three pieces of information in this prior art RFID tag organization is represented as a triplet 1410 comprising a type 1412, a length 1414, and a ~~value 1416~~ value 1416. The type field 1412 indicates to what extent the information stored on the tag may be changed. For instance, the UPC 1402 is stored on the tag in Fig. 14 using a “read-only” type designation, as shown at 1420. That means that the value 1424 of the UPC triplet ~~[[402]]~~ 1402 cannot be changed. Other possible values for the type field 1412 include “unlimited read/write” and “short rewrite”, where these types indicate that the value field 1416 is an updateable field and a field which can only be rewritten using a shorter-length value, respectively. --

Please replace the paragraph that begins on Page 40, line 7 and carries over to Page 41, line 4 with the following marked-up replacement paragraph:

-- A set of commonly-owned and co-pending U. S. Patent applications provides several techniques to detect shoplifting at a store exit, using a combination of RFID tags on merchandise, data written to RFID tags at the point of sale, and other identifiers. See the U. S. Patent Applications titled “Using RFID to Detect and/or Prevent Theft and Shoplifting” (attorney docket RSW920030126US1, serial number 10/665,282; now U. S. Patent 7,005,988), “Using Radio Frequency Identification with Customer Loyalty Cards to Detect and/or Prevent Theft and Shoplifting” (attorney docket RSW920030194US1, serial number 10/666,483), “Using Radio Frequency Identification with Transaction-Specific Correlator Values Written on Transaction Receipts to Detect and/or Prevent Theft and Shoplifting” (attorney docket RSW920030195US1,

serial number 10/666,703; now U. S. Patent 7,012,528), “Using Radio Frequency Identification with Transaction-Specific Correlator Values to Detect and/or Prevent Theft and Shoplifting” (attorney docket RSW920030196US1, serial number 10/666,287), and “Using Radio Frequency Identification with Transaction Receipts to Detect and/or Prevent Theft and Shoplifting” (attorney docket RSW920030197US1, serial number 10/666,700). In some embodiments, techniques disclosed in these patent applications write data, which may be a correlator containing a transaction ID, date/timestamp, sequence number, customer number, etc., to an RFID tag on merchandise at the point of sale. This is quite distinct from the present invention, which writes a non-repudiable ownership transfer log directly onto the merchandise using a variety of techniques which include, but are not limited to, RFID. --

Please replace the paragraph that begins on Page 41, line 12 and carries over to Page 42, line 1 with the following marked-up replacement paragraph:

-- Commonly-assigned, co-pending U. S. Patent Application 09/847,889 (attorney docket RSW920010017US1, filed 05/03/2001; now U. S. Patent 7,076,441), titled “Identification and Tracking of Persons Using RFID-Tagged Items”, discloses techniques for using RFID technology to identify or characterize people, based on the RFID tags present in items being carried by that person at a point in time. Commonly-assigned, co-pending U. S. Patent Application 10/612,251 (attorney docket RSW920030099US1, filed 07/02/2003; now U. S. Patent 6,992,574), titled “Object Matching via RFID”, discloses techniques for using RFID technology to track and match objects, when the RFID tags of these objects have been programmed with data suitable for indicating that the items are in association with one another. Neither of these patent applications

teach registering product ownership transactions or recording such information in an RFID tag. --